



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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9-23-03

Inventor(s): **Ron Maurer**  
Serial No.: **09/676866**

Group Art Unit: **2623**  
Examiner: **Wu, Jingge**

Filed: **September 29, 2000**

Confirmation No.: **3319**

Title: **Reduction Of Chromatic Bleeding Artifacts In Images Containing  
Subsampled Chrominance Values**

Atty Docket: **10007351-1**

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SEP 08 2003

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**Response to Restriction Requirement**

Sir:

This is in response to the restriction requirement mailed July 28, 2003 wherein the claims were grouped into the following categories:

- I. Claims 1-14 and 16-29, drawn to color bleeding correction, classified in class 382, and class 358, subclass 520.
- II. Claims 15, drawn to reconstructing color image by interpolation, classified in class 362, subclass 162, 300 and class 345, subclass 606.

In response to the restriction requirement Applicant provisionally elects Claims 1-14 and 16-29 (Group I) with traverse. Applicant respectfully requests reconsideration of the restriction requirement for the following reasons.

Applicant agrees that inventions I and II are related and invention I can be used separately for color bleeding correction. However, applicant respectfully submits that invention I is a specific sub-combination ( $B_{sp}$ ) of the combination ( $AB_{sp}$ ) as recited by invention II according to MPEP 806.05(c)II. In particular, invention I (i.e., Claims 1-14 and 16-29) recites the following specific subcombination  $B_{sp}$ :

$B_{sp}$ : . . . modifying chrominance values of at least some pixels in the digital image, the pixels being modified according to its luminance values and chromatic dynamic range.

Moreover, invention II recites the combination AB<sub>sp</sub> which includes the specific subcombination B<sub>sp</sub> of invention I as follows:

A: interpolating the chrominance channels; and  
B<sub>sp</sub>: . . . modifying chrominance values of at least some pixels in the digital image, the pixels being modified according to its luminance values and chromatic dynamic ranges.

According to MPEP 806.05( c)II:

“Where the relationship between the claims is such that the separately claimed subcombination B<sub>sp</sub> constitutes the essential distinguishing feature of the combination AB<sub>sp</sub> as claimed, the inventions are not distinct and a requirement for restriction must not be made, *even though the subcombination has separate utility.*” [emphasis added].

In the present case, the subcombination B<sub>sp</sub> of the combination AB<sub>sp</sub> of invention II “constitutes the essential distinguishing feature” of the combination since the element A of the combination is directed to a well know step of “interpolating the chrominance channels” and hence the subcombination B<sub>sp</sub> (the only remaining step) necessarily becomes the distinguishing feature of the combination. Hence, according to MPEP 806.05(c)II, since the subcombination B<sub>sp</sub> (i.e., the step of “modifying chrominance values of at least some pixels in the digital image, the pixels being modified according to its luminance values and chromatic dynamic ranges”) represents the distinguishing feature of combination AB<sub>sp</sub> of invention I and even though the subcombination B<sub>sp</sub> of invention II has a separate utility, the inventions are not distinct and a restriction requirement is not proper.

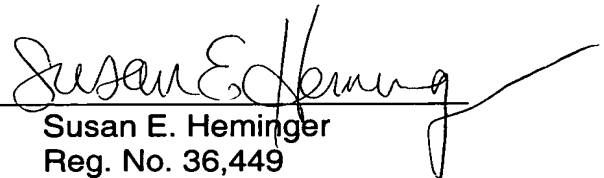
Moreover, according to MPEP 806.05(c), “The inventions are distinct if it can be shown that a combination as claimed:

(A) does not require the particulars of the subcombination as claimed for patentability (to show novelty and unobviousness), and . . . “

As can be seen, the subcombination B<sub>sp</sub> of invention I is required to show patentability for the combination AB<sub>sp</sub> of invention II because without B<sub>sp</sub> invention II lacks novelty.

In view of the foregoing Applicant respectfully request withdrawal of the restriction requirement.

Respectfully submitted,

By   
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Dated: August 28, 2003  
Tel.: 650/236-2738

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UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Ron Maurer

Confirmation No.: 3319

Application No.: 09/676,866

Examiner: Wu, Jingge

Filing Date: Sept. 29, 2000

Group Art Unit: 2623

Title: REDUCTION OF CHROMATIC BLEEDING ARTIFACTS IN IMAGES CONTAINING  
SUBSAMPLED CHROMINANCE VALUES

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Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Technology Center 2600

TRANSMITTAL LETTER FOR RESPONSE/AMENDMENT

Sir:

Transmitted herewith is/are the following in the above-identified application:

- (X) Response/Amendment ( ) Petition to extend time to respond  
( ) New fee as calculated below ( ) Supplemental Declaration  
( ) No additional fee (Address envelope to "Mail Stop Non-Fee Amendment")  
(X) Other: Response to Restriction Requirement (fee \$ )

CLAIMS AS AMENDED BY OTHER THAN A SMALL ENTITY						
(1) FOR	(2) CLAIMS REMAINING AFTER AMENDMENT	(3) NUMBER EXTRA	(4) HIGHEST NUMBER PREVIOUSLY PAID FOR	(5) PRESENT EXTRA	(6) RATE	(7) ADDITIONAL FEES
TOTAL CLAIMS		MINUS		= 0	X \$18	\$ 0
INDEP. CLAIMS		MINUS		= 0	X \$84	\$ 0
[ ] FIRST PRESENTATION OF A MULTIPLE DEPENDENT CLAIM					+ \$280	\$ 0
EXTENSION FEE	1ST MONTH \$110.00	2ND MONTH \$410.00	3RD MONTH \$930.00	4TH MONTH \$1450.00		\$ 110
OTHER FEES						\$
TOTAL ADDITIONAL FEE FOR THIS AMENDMENT						\$ 110

Charge \$110.00 to Deposit Account 08-2025. At any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account 08-2025 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 08-2025 under 37 CFR 1.16 through 1.21 inclusive, and any other sections in Title 37 of the Code of Federal Regulations that may regulate fees. A duplicate copy of this sheet is enclosed.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Alexandria, VA 22313-1450.

Date of Deposit: August 28, 2003

Typed Name: Dee Timmons

Signature: *Dee Timmons*

Respectfully submitted,

Ron Maurer

By *Susan E. Heminger*

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Date: August 28, 2003